

Listing of Claims

1. (Previously presented) A process for the preparation of an unsupported olefin polymerisation catalyst comprising:
 - a) reacting an aluminoxane and a Lewis base in an optionally halogenated hydrocarbon solvent to form a particulate suspension;
 - b) reacting said suspension with a metallocene complex in an optionally halogenated hydrocarbon solvent; and
 - c) isolating the olefin polymerisation catalyst;
wherein said Lewis base is an aliphatic or aromatic amine, an ether, phenol, benzyl alcohol, ethylene glycol, glycerol, bisphenol, triethanolamine, butanediol, 4,4'-isopropylidenediphenol, or 3-hydroxypropylene oxide or a mixture thereof.
2. (Previously presented) A process as claimed in claim 1 wherein said Lewis base is aniline, benzylamine or 1,4-butanediol diglycidyl ether or a mixture thereof.
3. (Currently amended) A process as claimed in claim 1 [[or 2]] wherein said aluminoxane is MAO.
4. (Currently amended) A process as claimed in claim 1 any one of claims 1 to 3 wherein the optionally halogenated hydrocarbon solvent used during step a) is an optionally halogenated C₄₋₁₂ alkane or C₆₋₁₂ arylene.

ATTORNEY DOCKET NO. 04150.0019U1
International Application No. PCT/GB2003/009803

5. (Previously presented) A process as claimed in claim 4 wherein said hydrocarbon solvent is toluene or xylene.

6. (Currently amended) A process as claimed in claim 1 any one of claims 1 to 5 wherein the solvent employed in step b) is the same as that employed in step a).

7. (Currently amended) A process as claimed in claim 1 any one of claims 1 to 6 wherein the ratio of aluminium in the aluminoxane to Lewis base is 5 to 40 mol/mol.

8. (Currently amended) A process as claimed in claim 1 any one of claims 1 to 7 wherein the metallocene complex is bis(n-Bu-cyclopentadienyl) zirconium dichloride.

9. (Currently amended) A process as claimed in claim 1 any one of claims 1 to 8 wherein the molar ratio between aluminium in the aluminoxane and the transition metal in metallocene is in the range 20:1 to 1000:1.

10. (Currently amended) A catalyst obtainable by the [[a]] process as claimed in claim 1 any one of claims 1 to 9.

11. (Previously presented) The use of a catalyst as claimed in claim 10 in olefin polymerisation.

**ATTORNEY DOCKET NO. 04150.0019U1
International Application No. PCT/GB2003/009803**

12. (Previously presented) Use of the reaction product of an aluminoxane and a Lewis base to form a catalyst carrying suspension in an optionally halogenated hydrocarbon solvent wherein said Lewis base is an aliphatic or aromatic amine, an ether, phenol, benzyl alcohol, ethylene glycol, glycerol, bisphenol, triethanolamine, butanediol, 4,4'-isopropylidenediphenol, or 3-hydroxypropylene oxide or a mixture thereof.

13. (Previously presented) A process for the preparation of polyolefins comprising polymerising at least one olefin in the presence of an olefin polymerisation catalyst as claimed in claim 10.

14. (Previously presented) A process as claimed in claim 13 wherein said polymerisation takes place in the slurry phase.

15. (Previously presented) A process for the preparation of a prepolymerised olefin polymerisation catalyst comprising:

- a) reacting an aluminoxane and a Lewis base in an optionally substituted hydrocarbon solvent to form a particulate suspension;
- b) reacting said suspension with a metallocene complex in an optionally substituted hydrocarbon solvent to form a catalyst;
- c) prepolymerising said catalyst in the presence of an olefin; and
- d) isolating the prepolymerised catalyst;

**ATTORNEY DOCKET NO. 04150.0019U1
International Application No. PCT/GB2003/009803**

wherein said Lewis base is an aliphatic or aromatic amine, an ether, phenol, benzyl alcohol, ethylene glycol, glycerol, bisphenol, triethanolamine, butanediol, 4,4'-isopropylidenediphenol, or 3-hydroxypropylene oxide or a mixture thereof.